Sealite®
www.sealite.com

ATLANTIC-2600

Ocean Buoy

Installation & Service Manual

Version 1.3

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Version No.	Description	Date	Approved
1.0	Manual Launch	April 2011	C. Procter
1.1	Max Mooring Load adjustment	May 2012	M. Walker
1.2	Breather Unit	September 2013	P. Rainey
1.3	Mooring diagram update	September 2015	D. Tomaszewicz

Introduction

Congratulations! By choosing to purchase a Sealite Buoy, you have become the owner of one of the most advanced rotationally-moulded polyethylene marine buoys in the world.

Sealite Pty Ltd has been manufacturing buoys for over 25 years, and particular care has been taken to ensure your buoy gives years of service.

As a commitment to producing the highest quality products for our customers, Sealite has been independently certified as complying with the requirements of ISO 9001:2008 quality management system.

By taking a few moments to browse through this booklet, you will become familiar with the versatility of your buoy, and be able to maximise its operating function.

Sealite Buoy Division

Sealite marine buoys are manufactured on-site from rotationally-moulded UV-stabilised polyethylene, and are designed to offer a low-maintenance, high visibility solution to marine navigation.

The Sealite buoy division provides turn-key production of navigation buoys. From tooling development, raw materials selection, and production, to final testing and inspection, Sealite guarantees superior quality and fast turn-around times.

Sealite's buoy products are available in a wide range of configurations and sizes, and can be economically shipped worldwide.

Why Choose Polyethylene Buoys?

- No painting
- Inhibits growth
- Increased interval between servicing
- Routine maintenance on location
- Easily repaired in the unlikely event of damage
- Lightweight for ease of deployment and maintenance
- Environmentally friendly – no use of toxic antifouling paint

1. Mooring Requirements & Regulations

Please contact your local authority for any specific requirements regarding the deployment of buoys.

IALA also has guidelines and recommendations that should be followed.

All information given in this manual is advisory only. Please consult with your local authority before deploying your buoy products.

Local conditions that need to be considered include:-

- Water depth
- Maximum currents
- Maximum wind speeds
- Sinker size and weight

ATLANTIC-2600 Ocean Buoy

The ATLANTIC-2600 is a robust, rotationally-moulded polyethylene navigation buoy designed for offshore port and coastal applications.

SPECIFICATIONS • *	ATLANTIC-2600
General Characteristics	
Available Colours	Red, Green, White, Yellow as per IALA Recommendations
Focal Plane Height (mm/inches)	ATLANTIC-2600 (standard model): 2950 / 116 1/8 ATLANTIC-2600-ET (extended tower model): 3850 / 151 5/8
Total Float Volume (ltrs/US gallon)	5610 / 1482
Nominal Freeboard (mm/inches)	780 / 30 3/4
Nominal Draft (mm/inches)	690 / 27 1/4
Reserve Buoyancy (kgs/lbs)	1475 / 3252
Maximum Mooring Load (kgs/lbs)	1475 / 3252 Must lift with 2 points when mooring load os above 1050 / 2315
Draft, Maximum (mm/inches)	960 / 37 3/4
Freeboard, Minimum (mm/inches)	510 / 20 1/8
Safe Working Load, 1pt (kgs/lbs)	1950 / 4300
Safe Working Load, 2pt (kgs/lbs)	5200 / 11460
Submergence (kg/cm, lb/inches)	54.7 / 306
Visual Area (m^2/ft^2)	4.0 / 13.1
Physical Characteristics	
Material	Rotationally-moulded UV-stabilised virgin polyethylene, 316-grade internal tie bars, lifting & mooring eyes
Wall Thickness (mm/inches)	18 / 3/4 (float section)
Ballast (kg/lbs)	400 / 882 internal concrete
Filling	Closed-cell polyurethane foam (float section)
Height (mm/inches)	ATLANTIC-2600 Standard Model: 4120 / 162 1/4 ATLANTIC-2600-ET: 5020 / 197 5/8
Width (mm/inches)	2600 / 102 3/8
Mass (kg/lbs)	970 / 2138
Radar Reflector	Echomax
Product Life Expectancy	>20 years
Certifications	
IALA	Surface colours compliant to IALA E-108
Quality Assurance	ISO9001:2008
Intellectual Property	
Trademarks	SEALITE® is a registered trademark of Sealite Pty Ltd
Warranty *	5 years
Lantern Options	Sealite SL-C310, SL-C410, SL-C415, SL-C420, SL-125 Series or SL-155 Series
Options Available	• Mould-in graphics • Day marks • Monitoring Systems (AIS, GSM)

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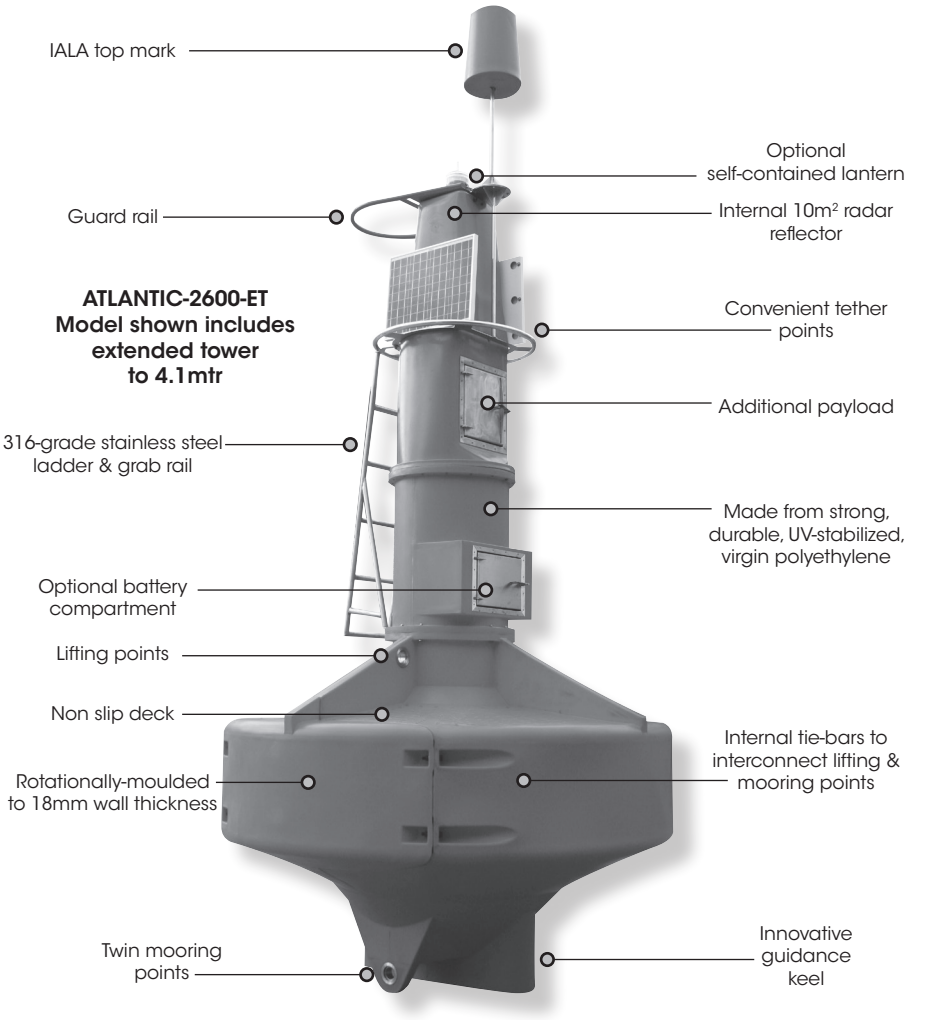
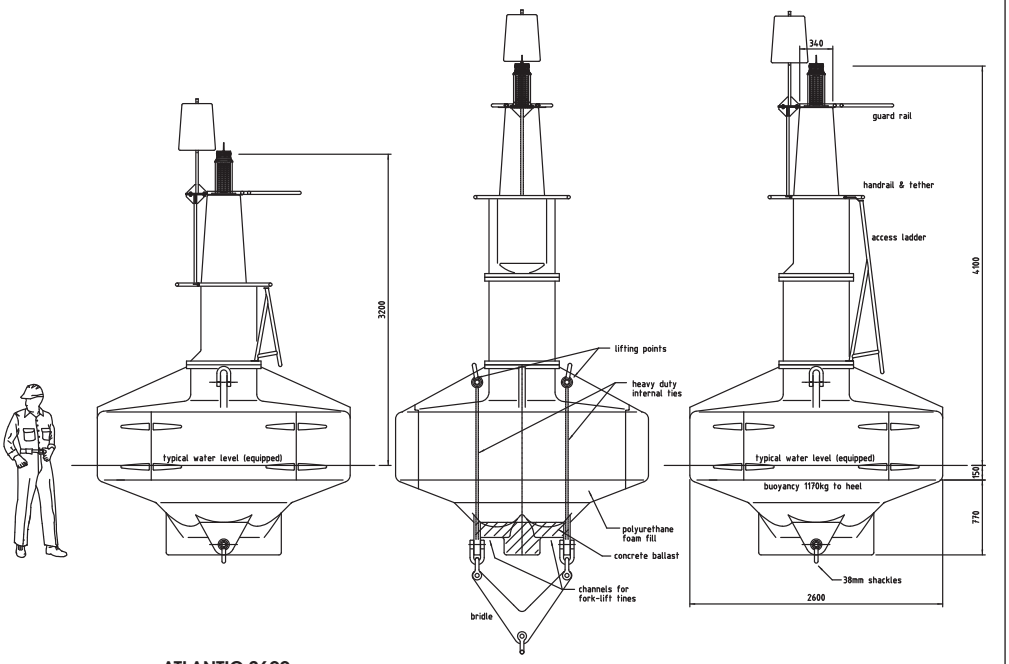
• Specifications subject to change or variation without notice
* Subject to standard terms and conditions

Product Features & Technical Specifications

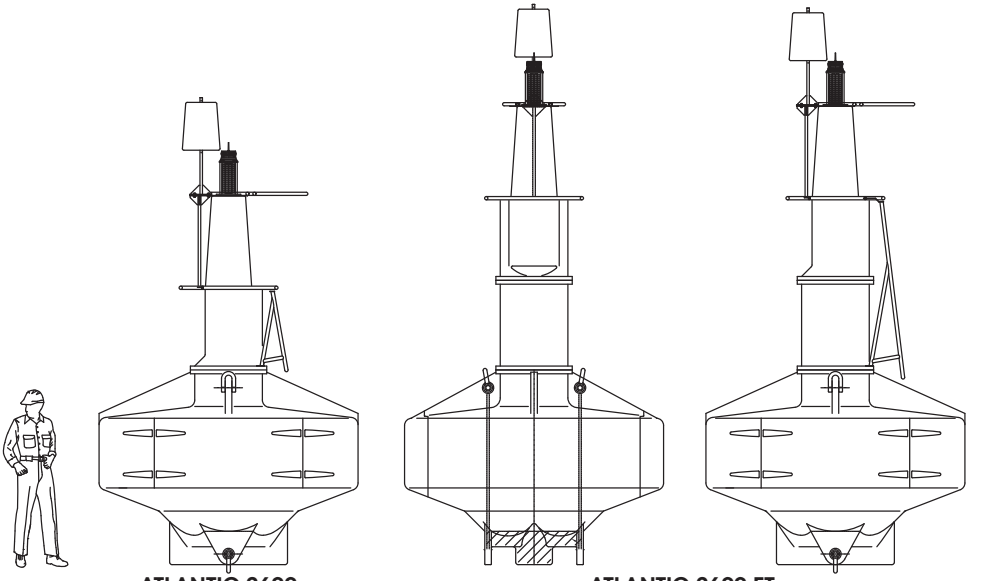




ATLANTIC-2600
Standard Model

ATLANTIC-2600-ET
Model includes extended tower

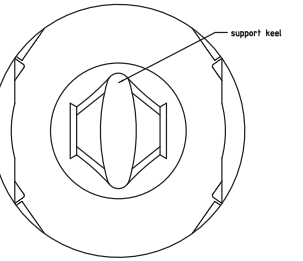
ATLANTIC-2600 Product Components



ATLANTIC-2600
Standard Model

ATLANTIC-2600-ET
Model includes extended tower

No	Description	Standard Model	Extended Tower
		Qty	
1	Atlantic Float Section	1	1
2	Atlantic Float Section Side Panels	2	2
3	Atlantic Tower	1	1
4	Mid Section	-	1
5	Ladder	1	1
6	Grab Rail	1	1
7	Guard Rail	1	1
8	Day Mark Mounting Plate (Optional)		
9	Atlantic Lug Bushes	4	4
10	G316 S/S Bolt. M10x100mm Long	16	32
11	G316 S/S Flat Washer	32	64
12	G316 S/S Spring or Locking Washer	16	32
13	G316 S/S Plain Nut	16	32
14	G316 S/S Bolt M16 x 90mm	8	8
15	G316 S/S M16 Flat Washer	16	16
16	G316 S/S M16 Spring Washer	8	8
17	G316 S/S M16 Plain Nut	8	8
18	Galvanised Grade M Shackle Ø38 with Ø44 pin, inside width 70mm x 137mm	2	2
19	Galvanised Grade S Shackle, Ø32mm	2	2
20	Galvanised Grade S Shackle, Ø38mm	1	1
21	Bridle Plate	1	1
G316 S/S = Grade 316 Stainless Steel			



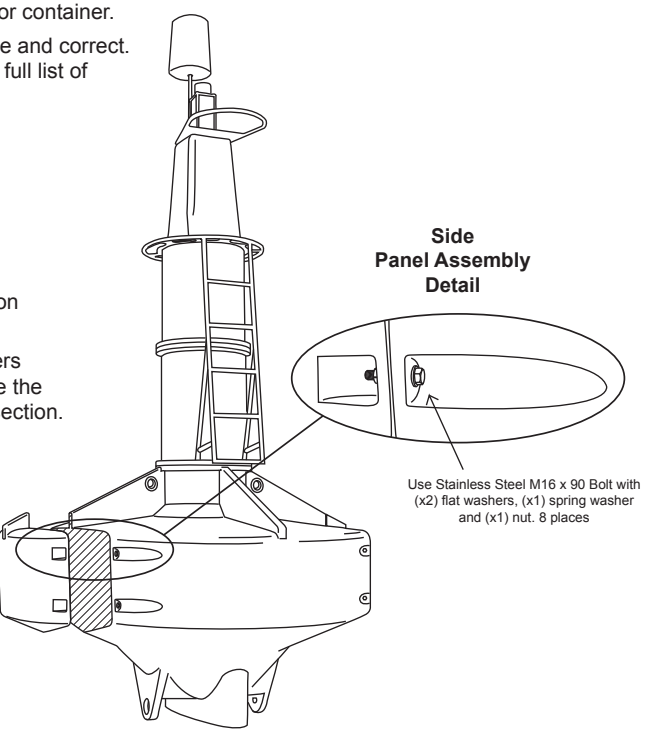
Assembly Instructions

Check Components

- Unload all components from crate or container.
- Check all components are complete and correct. Use table on the previous page for full list of components.

Prepare the Float Section

- Position the Atlantic Float Section on solid, level ground.
- Using the 8 x M16 bolts, flat washers spring washers and nuts; assemble the float side panels to the main float section.



Prepare Tower Section

- Fit the grab rail to the tower section
- Fit the guard rail and top mark support
- Fit the top mark and the lantern to the top of the tower section
- Fit the mid section to the tower (extended tower model only)
- Fit the ladder assembly
- Fit any day mark brackets
- Fit the tower section to the float assembly using 16 x M10 Bolts, washers and nuts
- Final Inspection:
    - Check all bolts are tightened
    - Check lantern is working correctly
    - Check battery (if fitted) is secured properly
    - Check battery door (if fitted) is latched properly to form a water tight seal
- Ensure the lug bushes are fitted to the mooring bushes of the buoy
- Fit the mooring assembly to the mooring points

Sealite Breather Unit

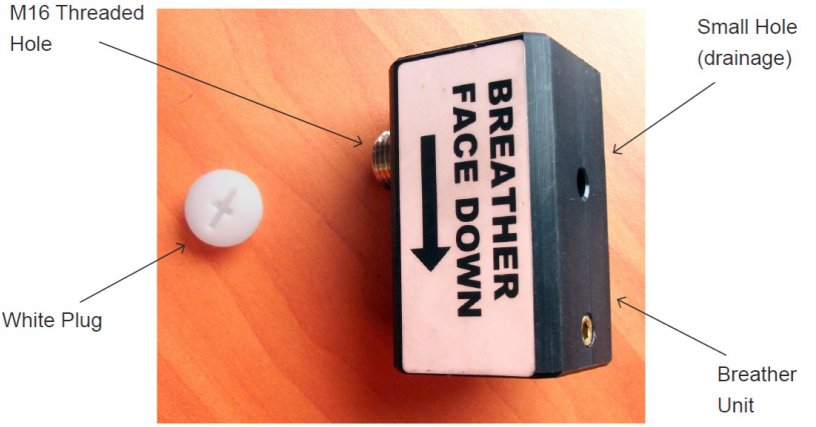
How it Works

Inside the breather unit, is an air channel which forms in the shape of an S-Bend which runs from the M16 threaded hole to a small hole located on the other side.

This channel, fills with water and spills out through the small hole, allowing the water to effectively drain from the buoy and at the same time, preventing water from entering into the buoy through the small hole.

Installation Instructions for Breather Units (For Products which Contain Sealite's Power Packs)

1. Unscrew the white plug located at the side/base of the buoy
2. Apply a small amount of marine grade silicon adhesive to the thread of the breather valve
3. Carefully screw in the breather unit ensuring that the arrow's direction is pointing down.



Mooring Assembly Instructions

Check Components

- Unpack all Mooring and check all components are complete and correct.

Prepare & Attach Chain

- Fit and secure 1 x Ø38mm Shackle and 1 x Ø38mm Swivel Eye to the base of the bridle.

  Note: All Shackles must be positively locked. For example use 3mm Stainless Steel wire to lock the pin eye, or use a shackle pin with nut and split pin.

- Fit and secure a length of chain to the Swivel Eye using 1 x Ø38mm Shackle.

  Note: Please use the guides below to determine the correct chain size and length.

- Fit and secure the Bridle to the Buoy using 2 x Ø32mm Shackles. Place Ø36mm washers to either side of the bridle plate to pack the Shackle for a neat fit.

Attach Mooring Block

- Fit and secure the Chain to the Mooring Block.

- The Buoy is now ready for deployment.

Chain Size Guide

Water Depth		Recommended Chain Size (from swivel to mooring block)
Metres	Feet	
6 to 14	20 to 46	44mm
14 to 22	46 to 72	38mm
22 to 32	72 to 105	32mm
32 to 50	105 to 164	25mm
50 to 75	164 to 246	22mm

Chain Length Guide

	Recommended Length of Chain	Maximum Water Depth
Best Practice (Up to 6kts current)	3 x Water Depth	50m
For Reduced Water Circle (Current 2kts to 4kts)	2.5 x Water Depth	75m
For Minimum Water Circle (use only where current <2kts)	Not less than 2 x Water Depth	75m

ATLANTIC-2600 Mooring Diagram

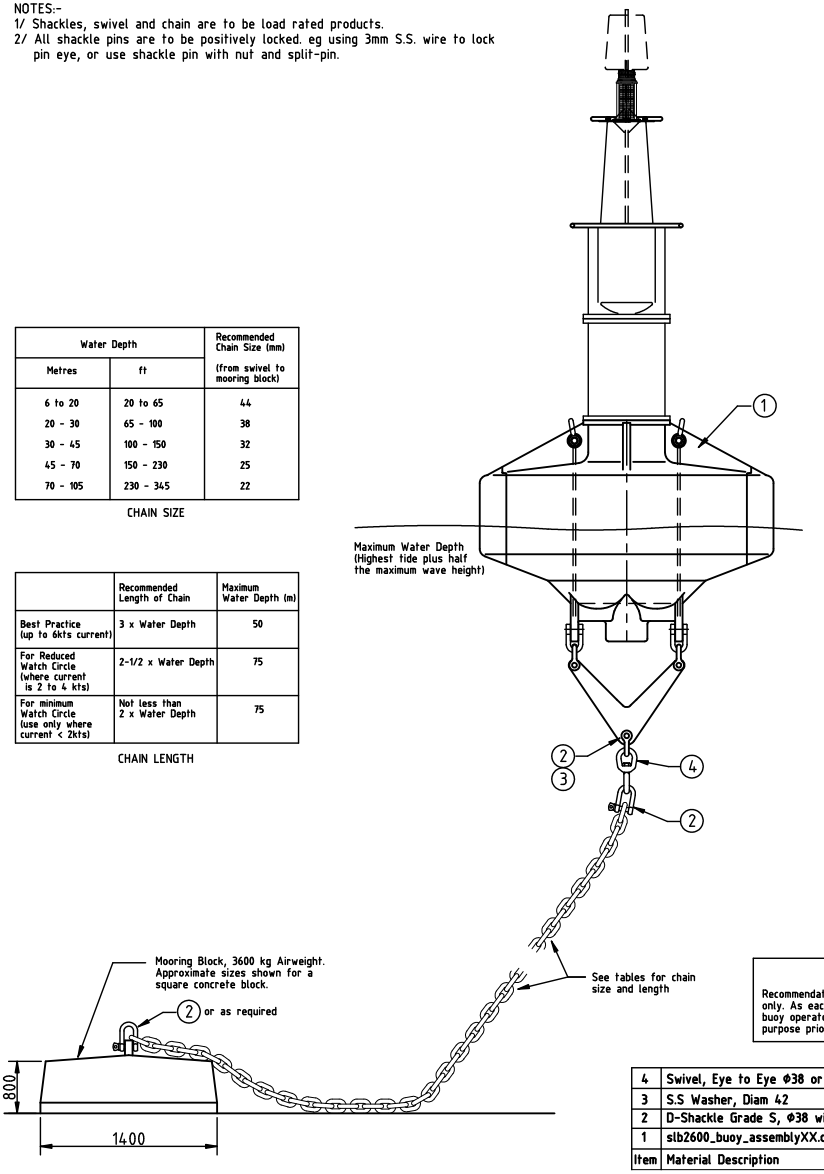
NOTES:-
1/ Shackles, swivel and chain are to be load rated products.
2/ All shackle pins are to be positively locked. eg using 3mm S.S. wire to lock pin eye, or use shackle pin with nut and split-pin.

Water Depth		Recommended Chain Size (mm)
Metres	ft	(from swivel to mooring block)
6 to 20	20 to 65	44
20 - 30	65 - 100	38
30 - 45	100 - 150	32
45 - 70	150 - 230	25
70 - 105	230 - 345	22

CHAIN SIZE

	Recommended Length of Chain	Maximum Water Depth (m)
Best Practice (up to 6kts current)	3 x Water Depth	50
For Reduced Watch Circle (where current is 2 to 4 kts)	2-1/2 x Water Depth	75
For minimum Watch Circle (use only where current < 2kts)	Not less than 2 x Water Depth	75

CHAIN LENGTH



General Note

Recommendations given herein are advisory only. As each buoy installation varies, the buoy operator should establish fitness for purpose prior to installation.

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Item	Material Description	Qty	Wt(kg)
4	Swivel, Eye to Eye Φ38 or larger	1	15
3	S.S Washer, Diam 42	as requ'd	-
2	D-Shackle Grade S, Φ38 with Φ41 pin	3	22
1	slb2600_buoy_assemblyXX.dxf	1	970

Marine Buoy Maintenance

Sealite Marine Buoys are designed to require very little maintenance. We recommend the buoy be inspected annually. Inspection may need to increase depending on the local conditions and the position of the buoy.

IALA Recommendation AISM E-107 suggests moorings are inspected annually.

Marine Buoy – Annual Maintenance

- Visually inspect buoy for damage
- Inspect the top mark for any damage. Repair any broken or damaged section.
- Clean buoy of animal debris

Mooring – Annual Maintenance

- Check and clear the tail and ride chains from shells and algae.
- Check for wear on any shackle axis and check the tapered pins. Any worn shackles must be replaced.
- Check the free movement of each swivel around its head. If any swivel head sticks it must be replaced.
- Check every link of the thrash length of the chain. Check the diameter of the nips and sides and also inspect the welds on every link.
- If depth allows, a worn riding chain may be reversed.
- Change a chain when any link shows excessive wear.
- Chain must be replaced if any link wears to less than 3/5 of the original diameter.

Mooring – Biannual Maintenance

- Inspect the ground chain and sinker.

Lanterns – Maintenance

- Please refer to the Installation Manual for the specific Marine Lantern fitted to the Buoy.

Notes

Sealite Buoy Warranty V2.2

Activating the Warranty

Upon purchase, the Sealite Pty Ltd warranty must be activated for recognition of future claims. To do this you need to register on-line. Please complete the Online Registration Form at:

www.sealite.com

Sealite Pty Ltd will repair or replace your buoy product in the event of failure for a period of up to twelve months (small buoy products less than 1500mm diameter) & a period of up to five years (large buoy products 1500mm diameter & larger) from the date of purchase.

The unit must be returned to Sealite freight prepaid.

Warranty Terms

1. Sealite Pty Ltd warrants that any rotationally-moulded buoy products ("Buoy Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of twelve (12) months for small buoy products up to under 1500mm diameter, and for a period of five (5) years for large buoy products including and over 1500mm in diameter from the date of purchase by the original purchaser.
2. Sealite Pty Ltd will repair or replace, at Sealite's sole discretion, any Buoy Products found to be defective in material and workmanship in the relevant warranty period so long as the Warranty Conditions (set out below) are satisfied.

Warranty Conditions

This Warranty is subject to the following conditions and limitations;

1. The warranty is applicable to buoys manufactured from 1/1/2009.
2. The warranty is void and inapplicable if:
   a. the product has been used or handled other than in accordance with the instructions in the owner's manual and any other information or instructions provided to the customer by Sealite;
   b. the product has been deliberately abused, or misused, damaged by accident or neglect or in being transported; or
   c. the defect is due to the product being repaired or tampered with by anyone other than Sealite or authorised Sealite repair personnel.
3. The customer must give Sealite Pty Ltd notice of any defect with the product within 30 days of the customer becoming aware of the defect.
4. No modifications to the original specifications determined by Sealite shall be made without written approval of Sealite Pty Ltd.
5. The product must be packed and returned to Sealite Pty Ltd by the customer at his or her sole expense. Sealite Pty Ltd will pay return freight of its choice. A returned product must be accompanied by a written description of the defect and a photocopy of the original purchase receipt. This receipt must clearly list model and serial number, the date of purchase, the name and address of the purchaser and authorised dealer and the price paid by the purchaser. On receipt of the product, Sealite Pty Ltd will assess the product and advise the customer as to whether the claimed defect is covered by this warranty.
6. Sealite Pty Ltd reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products and to change the prices or specifications of any product without notice or obligation to any person.

Limitation of Liability

To the extent permitted by acts and regulations applicable in the country of manufacture, the liability of Sealite Pty Ltd under this Warranty will be, at the option of Sealite Pty Ltd, limited to either the replacement or repair of any defective product covered by this Warranty. Sealite will not be liable to Buyer for consequential damages resulting from any defect or deficiencies.

Limited to Original Purchaser

This Warranty is for the sole benefit of the original purchaser of the covered product and shall not extend to any subsequent purchaser of the product.

Miscellaneous

Apart from the specific warranties provided under this warranty, all other express or implied warranties relating to the above product is hereby excluded to the fullest extent allowable under law. The warranty does not extend to any lost profits, loss of good will or any indirect, incidental or consequential costs or damages or losses incurred by the purchaser as a result of any defect with the covered product.

Warrantor

Sealite Pty Ltd has authorised distribution in many countries of the world. In each country, the authorised importing distributor has accepted the responsibility for warranty of products sold by distributor. Warranty service should normally be obtained from the importing distributor from whom you purchased your product. In the event of service required beyond the capability of the importer, Sealite Pty Ltd will fulfil the conditions of the warranty. Such product must be returned at the owner's expense to the Sealite Pty Ltd factory, together with a photocopy of the bill of sale for that product, a detailed description of the problem, and any information necessary for return shipment.

Information in this manual is subject to change without notice and does not represent a commitment on the part of the vendor.
Sealite products are subject to certain Australian and worldwide patent applications.

Other Sealite Products Available

Marine Lanterns
(1–19NM)

Monitoring
& Control Systems

Bridge & Barge Lights

Marine Buoys
(up to 3mt in diameter)

Area Lighting

Mooring Systems
& Accessories

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